

REMARKS

Upon entry of this Amendment, claims 1-10 are all the claims pending in the application. Claims 6-10 have been added. Claims 1-5 presently stand rejected.

Claim 1-5 have been amended only for grammatical and English language usage reasons and to render the format of the claims consistent with standard USPTO claiming format. No amendments have been made to narrow the scope of the claims. In particular, no amendments have been made to address a prior art rejection asserted against any claim. All prior art rejections have been fully and exclusively addressed by the remarks below.

The Examiner has not returned the initialed Form PTO-1449 for the Information Disclosure Statement filed on May 31, 2001. The Examiner is respectfully requested to return the initialed PTO-1449 with the next communication from the Office.

The Examiner is respectfully requested to acknowledge receipt and indicate approval of the drawings filed with the application on May 31, 2001.

Claims 1-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over admitted prior art in view of Fujita et al. (USP 4,355,381) ("Fujita et al.").

For the following reasons, Applicant respectfully traverses the prior art claim rejections and requests favorable disposition of the application. Claims 1-5 have all been amended for grammatical and English usage reasons only. None of the amendments made to claims 1-5 are directed to the prior art rejections asserted thereto and the scope of claims 1-5 has not been narrowed.

I. Claim Rejections Under 35 U.S.C. § 103

Summary

In regard to claim 1, the Examiner asserts that the control apparatus disclosed in the background section of the present application, i.e., the “admitted prior art”, discloses every recited feature except for the manual pulse generator, the pulse input means and the control panel means. The Examiner further asserts that Fujita et al. teaches each of the recited features of claim 1 that are missing from the admitted prior art. Finally, the Examiner asserts that it would have been obvious for one having skill in the art at the time the invention was made to modify the control apparatus of the admitted prior art to include the teachings of Fujita et al. The motivation for making such a modification, according to the Examiner, is that the timing pulse generator of Fujita et al. “helps function [the] electro-optic device”, also of Fujita et al.

The Prior Art References

Fujita et al. is directed to an electronic timepiece with liquid crystal display elements simulating an hour hand and minute hand. (Col. 1, lines 6-8). In similar devices known prior to the invention of Fujita et al., the correct time is often not displayed due to an inability of the display device to respond quickly enough to changes in counter outputs within the timepiece.

To address the recognized problem attendant with conventional timepieces, Fujita et al. provided an electronic timepiece with “circuitry operable during normal time display for time-divisionally selecting timing signals representative of units of time and converting the selected signals to pulsed voltages which are applied to the display elements”. (Col 1, lines 33-38). The circuitry in the timepiece of Fujita et al. is also “operable during time adjustment for stopping the

selection of predetermined timing signals and increasing the period during which timing signals corresponding to time units being adjusted are selected so that the pulsed voltages corresponding to the time units being adjusted are applied to the display elements for a longer period of time as compared to the normal time display thereby increasing the effective value of the pulsed voltages so as to improve the contrast between display and non-display portions of the display elements”. (Col. 1, lines 38-48). Accordingly, even if the time adjustment is quickly made, the time adjusting contents are always displayed by the display elements.” (Col. 1, lines 48-50).

Argument

Applicant respectfully submits that the rejection of claims 1-5 under 35 U.S.C. §103 is improper at least because a *prima facie* case of obviousness has not been presented. In particular, Applicant submits that Fujita et al. is directed to non-analogous art to that which the present invention is directed and as such the disclosure of Fujita et al. outside the scope of relevant art and cannot reasonably be used to render the present claims unpatentable. Further, applicant submits that even if Fujita et al. were combined with that which is disclosed in the background section of the current application, as proposed by the Examiner, the result would not meet all the requirements of the recited claims.

Lack of Prima Facie Case

Specifically, the Federal Circuit has recognized that the scope of the relevant prior art includes that “reasonably pertinent to the particular problem with which the inventor was

involved.”¹ According to the Court in *GPAC*, “in deciding whether a reference is from a relevant art, we first must determine whether the reference is within the inventor’s field of endeavor, and if it is not we next must determine whether the reference is reasonably pertinent to the particular problem confronting the inventor.”²

The inventor’s field of endeavor in regard to the present application is controlling the frequency of a device such as a variable-speed motor. In rejecting the inventor’s claims, the Examiner relies on *Fujita et al.* which, as described above, is directed to an electronic timepiece with liquid crystal display elements. Clearly, the respective fields of endeavor of the present inventor and *Fujita et al.* are entirely different.

Accordingly, to support a finding that *Fujita et al.* is within the scope of the relevant prior art, it must be determined whether *Fujita et al.* is directed to analogous art that is “reasonably pertinent to the particular problem with which the inventor was involved.”³ . “A reference is reasonably pertinent if, even though it may be in a different field of endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor’s attention in considering his problem.”⁴

¹ *In re GPAC Inc.*, 57 F.3d 1573, 1577; 35 U.S.P.Q.2D (BNA) 1116 ((citing *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535; 218 U.S.P.Q. (BNA) 871, 876 (Fed. Cir. 1983)(quoting *In re Wood*, 599 F.2d 1032, 1036, 202 U.S.P.Q. (BNA) 171, 174 (CCPA 1979))).

² *Id.* at 1578 (citing *Wood*, 599 F.2d at 1036, 202 U.S.P.Q. (BNA) at 174).

³ *Id.*

⁴ *Id.* at 1578 (citing *Clay*, 966 F.2d at 659, 23 U.S.P.Q.2D (BNA) at 1061).

Here, the problem to which the inventors of the present invention addressed was that in conventional control devices it took too long to set the frequency of a variable frequency device, such as a variable-speed motor. For example, when conventional analog devices are used, such as a variable resistor, overshoot occurs resulting in too much time being expended in reaching the desired frequency. Moreover, when conventional digital control devices are used, wasted time results due to the requirement of manually entering a frequency mode prior to manually entering a change in the frequency. A skilled artisan confronted with the problem addressed by the present inventors would not have considered the disclosure of Fujita et al. to arrive at a solution. Accordingly, Fujita et al. is not reasonably pertinent to the particular problem at hand and as such cannot reasonably be used to render the claimed invention obvious. For at least this reason the §103 rejection of claims 1-5 should be withdrawn.

Lack of Recited Elements

Moreover, even if Fujita et al. were combined with the conventional apparatus disclosed in the background section of the present application, the result would not fulfill all the recited requirements of the claims.

In particular, claim 1 recites, *inter alia*;

pulse input means for receiving the command pulses outputted from said manual pulse generator and calculating an amount of change in the received command pulses per unit time; and

control panel control means for calculating the output frequency based on the amount of change in the command pulses per unit time outputted from said pulse input means.

Nowhere in Fujita et al. is there any disclosure of a structure that functions in a manner even resembling that of either the *pulse input means* or the *control panel means*, as recited. Specifically, there is no structure disclosed that receives command pulses from a manual pulse generator and calculates an amount of change in the received command pulses per unit time. Similarly, there is no structure disclosed that calculates an output frequency based on the amount of change in the command pulses per unit time. This fact becomes even more evident when it is considered that the Examiner has not even attempted to point to any such disclosure in Fujita et al.

For at least this additional reason, Fujita et al., either alone or in any reasonable combination with the disclosed conventional apparatus of the present application, does not render the claims unpatentable. Accordingly, the rejection of claims 1-5 should be withdrawn.

II. Patentability of New Claims

For additional claim coverage merited by the scope of the invention, Applicant has added new claims 6-10. Applicant submits that the prior art does not disclose, teach, or suggest the combination of features contained therein.

Conclusion

In view of the foregoing remarks, the application is believed to be in form for immediate allowance with claims 1-10, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to **contact the undersigned** at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/857,020

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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